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Response dated January 8, 2008
Serial No. 09/842,604IN THE CLAIMS

Claim 1. (Currently Amended) A method of producing a multicast tree by a network management for an application configured to use a first multicast routing protocol, from existing protocol independent multicast routing information in a network, at least some of the protocol independent multicast routing information having been created from multicast information associated with an application configured to use a second multicast routing protocol, the network including a plurality of network devices including at least a plurality of routers that are members of a multicast associated with the multicast tree, a set of the routers each including a management information base containing protocol independent multicast database containing the protocol independent multicast routing information, the method comprising the steps of:

accessing, by the network management application, a plurality of the management information bases containing the protocol independent multicast databases;

retrieving, by the network management application, at least a portion of the existing protocol independent multicast routing information from each accessed management information bases protocol independent multicast database; and

tracing, by the network management application, the retrieved existing protocol independent multicast routing information to form a representation of the multicast tree in the network management application.

Claim 2. (Previously Presented) The method as defined by claim 1, wherein the multicast includes a root node, the retrieved existing protocol independent multicast routing information being traced from the root node, the root node being one of the plurality of routers.

Claim 3. (Currently Amended) The method as defined by claim 1, wherein the network implements the Internet Protocol, wherein the first multicast protocol is Distance Vector Multicast Routing Protocol (DVMRP), and wherein the second multicast protocol is Protocol Independent Multicast (PIM).

Claim 4. (Currently Amended) The method as defined by claim 1, wherein each of the set of routers includes a protocol independent unicast database having network information, the method further including:

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accessing, by the network management application, a plurality of the protocol independent unicast databases;

retrieving, by the network management application, at least a portion of the network information from each accessed protocol independent unicast database; and

using, by the network management application, the retrieved network information to form the multicast tree.

Claim 5. (Canceled)

Claim 6. (Currently Amended) The method as defined by claim 1, wherein at least one of the plurality of network devices includes a protocol dependent multicast routing information database, the multicast tree being formed free from any data retrieved from the protocol dependent multicast routing information database.

Claim 7. (Currently Amended) The method as defined by claim 1, wherein the retrieved protocol independent multicast information is traced by the network management an application incorporating the using Simple Network Management Protocol (SNMP).

Claim 8. (Previously Presented) The method as defined by claim 1 wherein the set of routers includes only one of the plurality of network devices.

Claim 9. (Currently Amended) The method as defined by claim 1, wherein the set of routers includes a first router and a second router, each management information base containing protocol independent multicast database including a set of protocol independent multicast data, the set of protocol independent multicast data being different in the management information base protocol independent multicast database in the first router than the set of protocol independent multicast data in the management information base protocol independent multicast database in the second router.

Claim 10. (Currently Amended) An apparatus for producing a multicast tree for a network management an application configured to use a first multicast protocol from existing protocol

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independent multicast information in a network that may have been created using a second multicast protocol, the network including a plurality of network devices including at least a plurality of routers that are members of the multicast, a set of the routers each including a management information base containing protocol independent multicast database-containing protocol independent-multicast information, the apparatus comprising a computer-readable medium containing instructions for controlling at least one processor to implement:

a multicast ~~database~~ processing module, the multicast ~~database~~ processing module being capable of accessing the protocol independent multicast information database within each of the set of the management information bases of each of the routers, the multicast ~~database~~ processing module also being capable of retrieving the existing protocol independent multicast information from each accessed multicast database-management information base; and

a tracing module operably coupled with the multicast ~~database~~ processing module, the tracing module being capable of tracing the retrieved existing protocol independent multicast information across the plurality of routers to form the representation of the multicast tree according to the first multicast protocol.

Claim 11. (Previously Presented) The apparatus as defined by claim 10, wherein the multicast includes a root node, the tracing module being capable of tracing the retrieved protocol independent multicast information from the root node, the root node being one of the plurality of network devices.

Claim 12. (Currently Amended) The apparatus as defined by claim 10, wherein the network implements the Internet Protocol, wherein the first multicast protocol is Protocol Independent Multicast (PIM), and wherein the second multicast protocol is Distance Vector Multicast Routing Protocol (DVMRP).

Claim 13. (Currently Amended) The apparatus as defined by claim 10, wherein each of the set of routers includes a protocol independent unicast database having network information, and wherein the computer-readable medium further contains instructions for controlling the at least one processor to implement the apparatus further including: a unicast database processing module configured to access a plurality of the protocol independent unicast databases within

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each of the set of routers, the unicast database processing module also being configured to retrieve at least a portion of the network information from each accessed protocol independent unicast database, the retrieved network data information being used to form the multicast tree.

Claim 14. (Canceled)

Claim 15. (Currently Amended) The apparatus as defined by claim 10 wherein at least one of the plurality of network devices includes a protocol dependent multicast routing information database, the multicast tree being formed free from any data retrieved from the protocol dependent multicast routing information database.

Claim 16. (Currently Amended) The apparatus as defined by claim 10, wherein the retrieved protocol independent multicast information is traced by the network management ~~an~~ application ~~incorporating the using~~ Simple Network Management Protocol (SNMP).

Claim 17. (Previously Presented) The apparatus as defined by claim 10 wherein the set of network devices includes only one of the plurality of routers.

Claim 18. (Currently Amended) A computer program product for use on a computer system for producing a multicast tree for a network management ~~an~~ application configured to use a first multicast protocol from existing protocol independent multicast information in a network, at least some of the protocol independent multicast information having been created from protocol specific multicast information associated with an application configured to use a second multicast protocol, the network including a plurality of network devices including at least a plurality of routers that are members of a multicast associated with the multicast tree, a set of the routers each including a Management Information Base ~~protocol independent multicast database~~ containing the protocol independent multicast information, the computer program product comprising a computer usable medium having computer readable program code thereon, the computer readable program code comprising:

program code for accessing a plurality of the MIBs ~~protocol independent multicast~~ ~~databases~~;

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program code for retrieving at least a portion of the existing protocol independent multicast information from each accessed MIB ~~protocol independent multicast database~~; and

program code for tracing the retrieved existing protocol independent multicast information to form a representation of the multicast tree in the network management application.

Claim 19. (Previously Presented) The computer program product as defined by claim 18, wherein the multicast includes a root node, and wherein the program code for tracing the retrieved protocol independent multicast information is configured to trace the retrieved existing protocol independent multicast information from the root node, the root node being one of the plurality of routers.

Claim 20. (Currently Amended) The computer program product as defined by claim 18, wherein the network implements the Internet Protocol, wherein the first multicast protocol is Distance Vector Multicast Routing Protocol (DVMRP), and wherein the second multicast protocol is Protocol Independent Multicast (PIM).

Claim 21. (Currently Amended) The computer program product as defined by claim 18, wherein each of the set of routers includes a protocol independent unicast routing information database having unicast routing network information, the computer program code further including:

program code for accessing a plurality of the protocol independent unicast routing information databases;

program code for retrieving at least a portion of the unicast routing network information from each accessed protocol independent unicast routing information database; and

program code for using the retrieved unicast routing network information to form the multicast tree.

Claim 22. (Canceled)

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Claim 23. (Currently Amended) The computer program product as defined by claim 18 wherein at least one of the plurality of network devices includes a protocol dependent multicast routing information database, the multicast tree being formed free from any data retrieved from the protocol dependent multicast routing information database.

Claim 24. (Currently Amended) The computer program product as defined by claim 18 wherein the program code for tracing ~~implements the~~ uses Simple Network Management Protocol (SNMP).

Claim 25. (Previously Presented) The computer program product as defined by claim 18 wherein the set of routers includes only one of the plurality of network devices.

Claims 26-28. (Canceled)